

What is claimed is:

1. An apparatus for attaching a module to one or more overhead support frames, the apparatus comprising:

a first frame configured to support a module; and

a lifting device configured to lift the first frame, the lifting device including:

a second frame;

a plurality of attachment devices configured to attach the second frame to the one or more overhead support frames; and

a driving device configured to lift the second frame up the plurality of attachment devices,

wherein the second frame receives the first frame therein as the second frame is lifted by the driving device.

2. The apparatus of Claim 1, wherein the driving device includes:

a plurality of gear boxes;

a transfer tube mounted between two of the plurality of gear boxes for activating one of the two gear boxes when the other of the two gear boxes is activated; and

two tubes coupled to two of the plurality of gear boxes, the tubes that are coupled to the two gear boxes rotate when one of the two gear boxes is activated.

3. The apparatus of Claim 2, wherein the plurality of attachment devices include:

two drums mounted to each of the tubes coupled to two of the plurality of gear boxes; and

straps attached at a first end to each drum and at a second end to one of the overhead support frames,

wherein the drums receive the respective strap when the tubes are rotated by the respective gear box.

4. The apparatus of Claim 3, wherein the tubes coupled to two of the plurality of gear boxes include telescoping tubes.

5. The apparatus of Claim 2, wherein the plurality of gear boxes includes:

first and second gear boxes; and

a bevel gear mechanically coupled to one of the first or second gear boxes,

wherein the transfer tube is mounted to one of the first or second gear boxes and the bevel gear, the transfer tube activating one of the first or second gear boxes when the bevel gear is activated.

5 6. The apparatus of Claim 5, wherein the first and second gear boxes include one or more worm gears.

7. The apparatus of Claim 2, wherein the plurality of gear boxes includes:
first and second gear boxes; and
a worm gear unit mechanically coupled to one of the first or second gear boxes,
wherein the transfer tube is mounted to one of the first or second gear boxes and
10 the worm gear unit, the transfer tube activating one of the first or second gear boxes when the worm gear unit is activated.

8. The apparatus of Claim 5, wherein the first and second gear boxes include one or more bevel gears.

15 9. The apparatus of Claim 1, wherein the first frame includes:
a support frame configured to support a module; and
at least one dolly configured to temporarily support the support frame.

10. The apparatus of Claim 9, wherein the support frame includes at least two telescoping frame members.

20 11. The apparatus of Claim 9, wherein the support frame further includes:
a plurality of mounting pads configured to support the module; and
a plurality of saddles configured to receive the second frame as the second frame is lifted by the driving device.

12. The apparatus of Claim 11, wherein the saddles include devices for rotatably receiving the second frame.

25 13. The apparatus of Claim 3, wherein each of the plurality of attachment devices further include:
two or more rails attachable to the one or more overhead support frames; and
a plurality of cars having wheels, each car coupled to corresponding straps,
wherein the cars are configured to be slideably received by one of the rails.

14. The apparatus of Claim 13, wherein each of the plurality of cars includes a connector configured to attach at a first end to the car and at a second end to the corresponding strap.

15. The apparatus of Claim 14, wherein the connector includes a turnbuckle.

5 16. An apparatus for attaching a module to one or more overhead support frames, the apparatus comprising:

a support frame configured to support the module;

at least one dolly configured to temporarily support the support frame;

a second frame including:

10 a plurality of gear boxes;

a transfer tube mounted between two of the plurality of gear boxes for activating one of the two gear boxes when the other of the two gear boxes is activated;

15 two tubes coupled to two of the plurality of gear boxes, the tubes coupled to the two gear boxes rotating when one of the two gear boxes is activated; and

two drums mounted to each of the tubes coupled to two of the plurality of gear boxes;

two or more rails attachable to the overhead support frame;

20 a plurality of cars having wheels, the cars being configured to be slideably received by the rails;

a connector configured to attach to a corresponding car; and

straps attached at a first end to each drum and at a second end to the connector,

25 wherein the drums receive the respective strap when the tubes are rotated by the respective gear box, and

wherein the second frame lifts the support frame as the second frame is lifted by the driving device.

17. The apparatus of Claim 16, wherein the tubes coupled to two of the plurality of gear boxes include telescoping tubes and the support frame includes at least two telescoping frame members.

18. The apparatus of Claim 16, wherein the support frame further includes:
a plurality of mounting pads configured to support the module; and

a plurality of saddles configured to rotatably receive the tubes coupled to two of the plurality of gear boxes as the second frame is lifted by the driving device.

19. The apparatus of Claim 16, wherein the connector includes a turnbuckle.

20. A method for attaching a module to one or more overhead support frames, the method comprising:

placing a module on a first frame;

attaching a lifting device to the one or more overhead support frames, the lifting device including:

a second frame formed to receive the first frame;

a plurality of attachment devices configured to attach the frame to the one or more overhead support frames; and

a driving device configured to lift the second frame up the plurality of attachment devices;

rolling the first frame with the module within the second frame;

activating the driving device by applying a rotating force to the driving device; and

lifting the first frame with the second frame as the second frame is lifted by the activated driving device.

21. The method of Claim 20, further including adjusting dimensions of the lifting device and the first frame.

22. The method of Claim 20, wherein the driving device includes one or more worm gears and one or more bevel gears.

23. The method of Claim 20, wherein rolling includes rolling the first frame within the second frame on one or more detachable dollies.

24. The method of Claim 20, wherein attaching a lifting device to the one or more overhead support frames further includes adjusting the lifting device relative to the one or more overhead support frames.

25. An apparatus for attaching a module to one or more overhead support frames in an aircraft, the apparatus comprising:

a first frame configured to support the module and fit through an aircraft door;
and

a lifting device configured to lift the first frame, the lifting device including:

a second frame;

5 a plurality of attachment devices configured to attach the second frame to
the one or more overhead support frames; and

a driving device configured to lift the second frame up the plurality of
attachment devices,

10 wherein the second frame receives the first frame therein as the second frame is
lifted by the driving device.

26. The apparatus of Claim 25, wherein the one or more overhead support frames are
mounted in a fuselage crown of the aircraft.

27. The apparatus of Claim 26, wherein the module includes a crew rest module.

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